Approximate solutions for non-linear iterative fractional differential equations

ABSTRACT

This paper establishes approximate solution for non-linear iterative fractional differential equations: $dyv(s)/ds^y = \aleph(s,v,v(v))$, where $\in (0, 1]$, $s \in I := [0, 1]$. Our method is based on some convergence tools for analytic solution in a connected region. We show that the suggested solution is unique and convergent by some well known geometric functions.

Keyword: Non-linear iterative fractional differential equations; Solutions